MAXDATA SR1202 Quick Start Guide

MAXDATA

European Regulations

This equipment complies with European Regulations EN55022 Class A (Emissions): Limits and Methods of Measurement of Radio Disturbance Characteristics of Information Technology Equipments: EN55024 (Immunity) and EN60950 (Safety compliance).

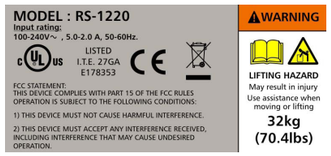
1 Safety

All plug-in modules are part of the fire enclosure and must only be removed when a replacement can be immediately added. The system must not be run without all modules in place.

FRAGILE
HANDLE WITH CARE
INSERT INTO ENCLOSURE GENTLY
Warranty void if not returned in Vendor Approved Packaging
Do not remove this item unless a bay blank or replacement module is installed
Unlatch and wait 30 secs for drive to spin down before removal. Place / store drive on cushioned surface.

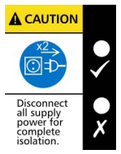
Permanently unplug the unit if you think that it has become damaged in any way and before you move it.

- The enclosure can weigh up to 32kg (70.4lb). Do not try to lift it by yourself.
- Do not lift a populated enclosure by the handles on the Power Supply modules, they are not designed to support the weight of the populated enclosure.
- In order to comply with applicable safety, emission and thermal requirements no covers should be removed and all bays must be fitted with plug-in modules.

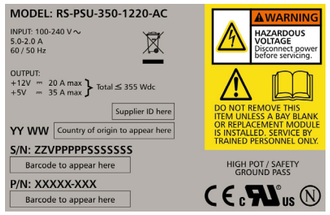

MODEL : RS-1220
Input rating:
100-240V~, 5.0-2.0 A, 50-60Hz.
LISTED
I.T.E. 27GA
E178353
FCC STATEMENT:
THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES
OPERATION IS SUBJECT TO THE FOLLOWING CONDITIONS:
1) THIS DEVICE MUST NOT CAUSE HARMFUL INTERFERENCE.
2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.
WARNING
LIFTING HAZARD
May result in injury
Use assistance when moving or lifting
32kg
(70.4lbs)

Chassis Warning Label

Fan Module Caution Label



PSU Warning Label


MODEL: RS-PSU-350-1220-AC
INPUT: 100-240 V ~
5.0-2.0 A
60 / 50 Hz
OUTPUT:
+12V 20 A max
+5V 35 A max
Total ≤ 355 Wdc
Supplier ID here
YY WW
Country of origin to appear here
S/N: ZZVPPPPPSSSSSSS
Barcode to appear here
P/N: XXXXX-XXX
Barcode to appear here
WARNING
HAZARDOUS VOLTAGE
Disconnect power before servicing
DO NOT REMOVE THIS ITEM UNLESS A BAY BLANK OR REPLACEMENT MODULE IS INSTALLED. SERVICE BY TRAINED PERSONNEL ONLY.
HIGH POT / SAFETY GROUND PASS

Power Supply Module Caution Label

- The enclosure must only be operated from a power supply input voltage range of 100 - 240 VAC.
- Operational:
  Temperature Range: +5 °C to +40 °C Relative Humidity: 8% to 80% non-condensing
- The plugs on the power supply cord are used as the main disconnect device. Ensure that the socket outlets are located near the equipment and are easily accessible.
- The equipment must be operated with two working Power Supply modules.
- A faulty Power Supply module must be replaced with a fully operational module within 24 hours.
- When powered by multiple AC sources, disconnect all supply power for complete isolation.
- The power connection should always be disconnected prior to removal of the Power Supply module from the enclosure.
- A safe electrical earth connection must be provided to the power cords. Check the grounding of the enclosure before applying power.
- Provide a suitable power source with electrical overload protection to meet the requirements laid down in the technical specification.

Warning: Do not remove covers from the Power Supply module. Danger of electric shock inside. Return the Power Supply module to your supplier for repair.

Caution: If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Battery Safety

Warning: There is a danger of explosion if the battery is incorrectly replaced.

Dispose of used batteries in accordance with the manufacturer's instructions and national regulations.

2 Preparation of Site and Host Server

Before you begin, make sure the site where you intend to set up and use your SR1202 storage system has the following:

- Standard AC power from an independent source or a rack power distribution unit with a UPS.
- Host computer with a standard Fibre Channel HBA (host bus adapter) with the latest BIOS and drivers. Follow the instructions provided with your host bus adapter. Install the HBA and its driver software, if necessary.
- At least 1 FC Cable LC-LC (Short Wave)

Note: The SR1202 supports most of the widely used operating systems, however, deployment on Microsoft Windows* requires the .inf driver file which is found on the CD.

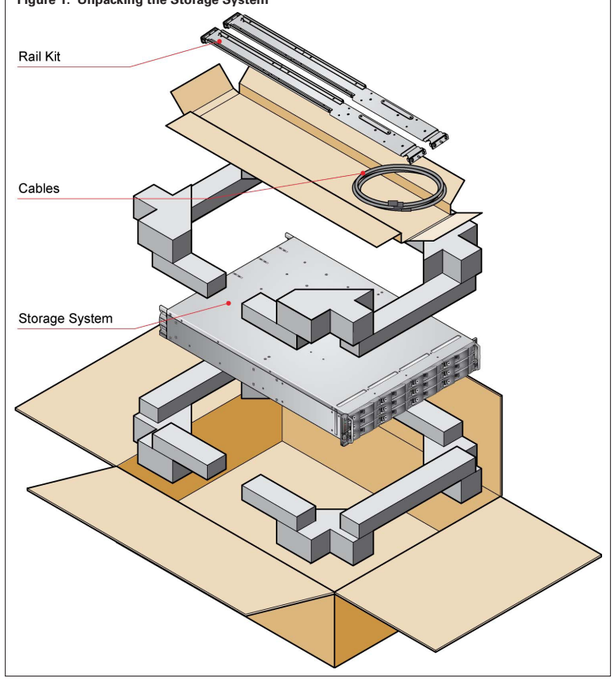
** Windows Servers - Insert the Software and Manuals Disc and install the .inf driver file.*

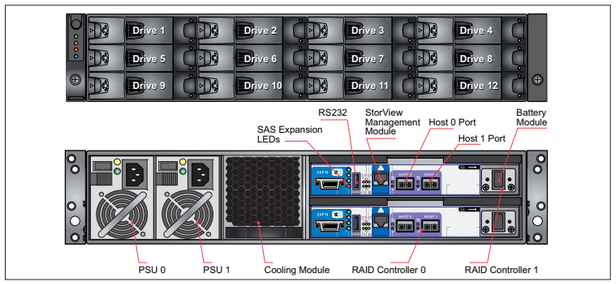
The Accessory Box contains the AC power cable(s), a serial communication cable, and the Software and Manuals Disc.

The Accessory Box Insert contains the adjustable rail slides and hardware parts to mount the enclosure.

3 Unpacking the Storage System

Figure 1: Unpacking the Storage System





4 Mounting the System into a Rack

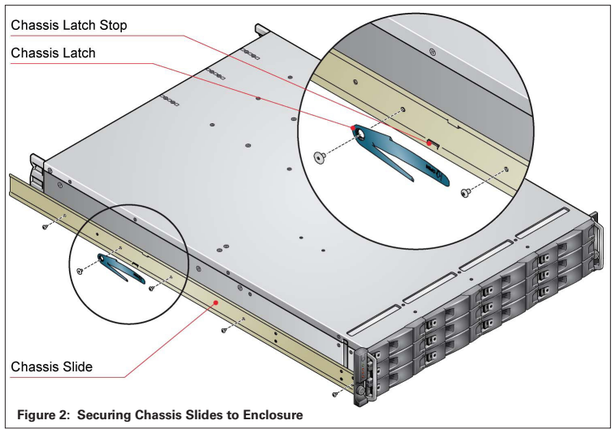
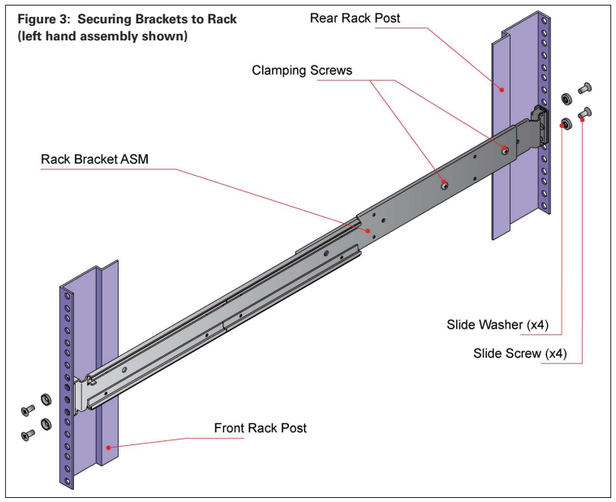


Figure 2: Securing Chassis Slides to Enclosure

1 Attach left and right chassis slides to the enclosure sides using 8 M3 x 4 buttonhead screws. (See Figure 2).

2 Assemble the left and right chassis latches using the special chassis latch screws. Ensure the latch is orientated as shown in Figure 2, with the spring arm located against its stop. On the right hand this is at the top, on the left at the bottom.

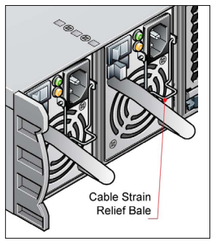
Figure 3: Securing Brackets to Rack (left hand assembly shown)



3 Assemble two brackets (not handed) to rack as follows (see Figure 3):
a. Locate location pin at the rear end of the rail into rear rack post.
b. Extend rail to fit between the front and rear rack posts.
c. Attach to both front and rear of rack using supplied washers and screws.
d. The screws should be left loose enough to allow sideways movement of the rail.
e. Tighten the two clamping screws.

4 Mount enclosure into rack as follows:
a. Lift enclosure and align with rack rails.
b. Carefully insert the chassis slides into the rack rails and push fully home.
c. Tighten rear screws.
d. Withdraw enclosure until it reaches the hard stops (approximately 400mm).
e. Tighten front screws.
f. Return enclosure to fully home position and attach to rack using captive fasteners on front flanges.

5 Connecting the AC Power



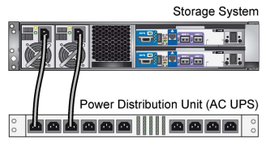


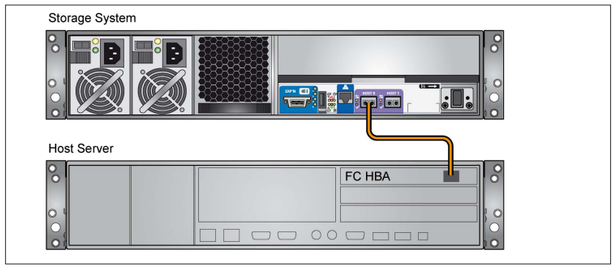
Figure 4: Connecting the AC Power

Install the power cord(s) and secure them using the cable strain relief bales.

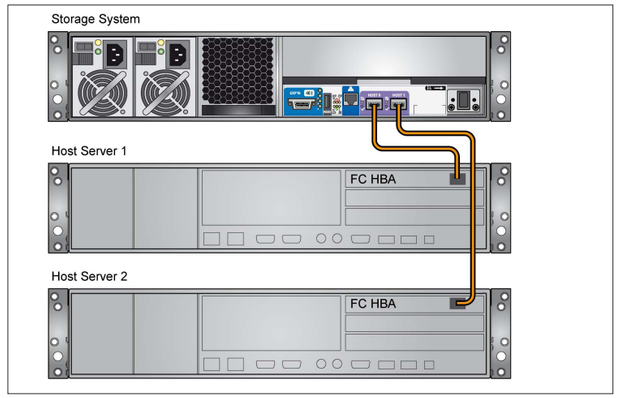
Figure 5: Cable Strain Relief Bales

6 Connecting Storage System to Host

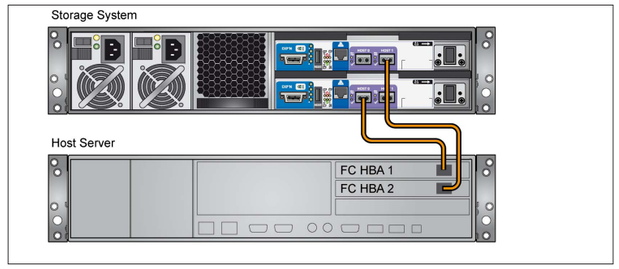
A Simplex: Single Host (Single HBA)



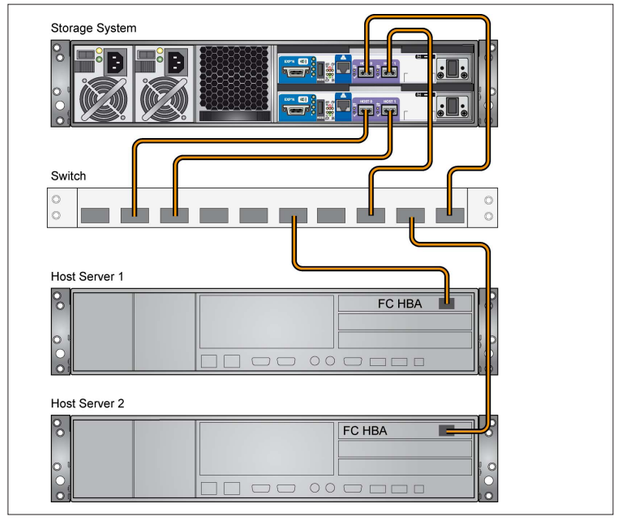
B Simplex: Dual Host (Single HBAs)



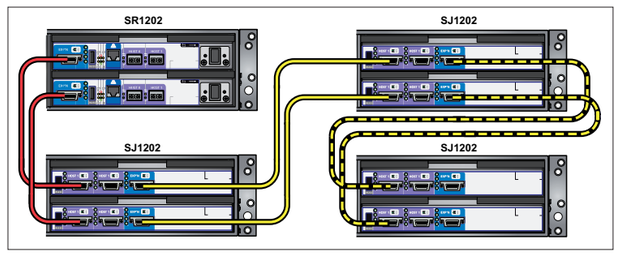
C Duplex: Single Host (Dual HBAs)



D Duplex: Single Switch



E Connecting Multiple Enclosures



The SR1202 Resource CD you received with your SR1202 Storage contains detailed information about planing, installing and operating the system. For latest information about your system and its components visit www.maxdata.com.

7 Power On

Power on the storage system, then power on the host system.

8 Installation

New Hardware Found at Startup - Installation

1. At startup if the "Found New Hardware" Wizard appears, click the Next button.
   The "Install Hardware Device Drivers" window appears.
2. Choose the option that reads "Display a list of the known drivers for this device so that I can choose a specific driver" and click the Next button.
   The "Hardware Type" menu will appear.
3. Scroll down and select "System Devices" and click the Next button. Now you will have to choose a driver.
4. Ensure that your SR1202 Resource Disc is in the CD-ROM drive.
   Click the Browse button. Locate the CD-ROM and then locate the "drivers" folder.
   Select the "xyratex_storage.inf" file. Click the Open button.
5. The "Select a Device Driver" window appears, under Model select "Xyratex F5402 RAID Controller". Click the Next button:
   The message "Completing the Found New Hardware Wizard" will appear.
6. Click the Finish button.

9 Software Installation: MS Windows®

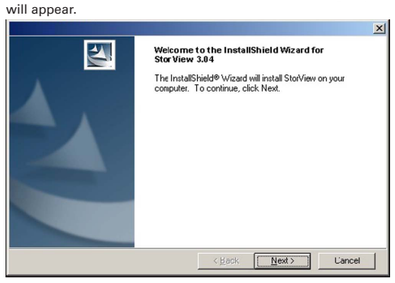
System Requirements

The following are the minimum system requirements to install and use StorView on Microsoft Windows platforms:

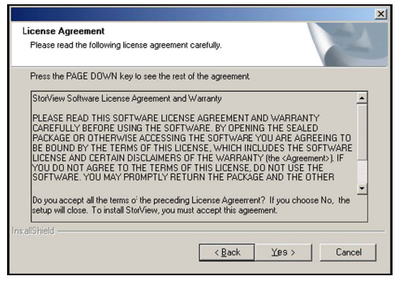
- A personal computer or server with an Intel Pentium III type processor or compatible.
- 128 MB RAM.
- CD-ROM drive and 100 MB hard disk space.
- 256 color video adapter (Display settings should be set to 1024x768).
- Operating system - Microsoft® Windows® XP, 2000 (SP1 or later) and 2003.
- Web browser that is compliant with HTTP 1.1 and JavaScript 1.3 or later.
- Network adapter or a Microsoft Loop Back Adapter.
- SR1202.

1 Insert the SR1202 Disc into your CD drive. The autorun program will automatically start the navigation menu, click on the link for the hardware product (SR1202) which you have installed.

2 Click the "Install StorView" link below the Software group. The installer Welcome screen will appear.


Welcome to the InstallShield Wizard for StorView 3.04
The InstallShield® Wizard will install StorView on your computer. To continue, click Next.
< Back
Next >
Cancel

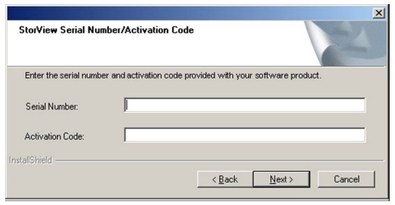
3 Read the license agreement and click the "Yes" button to accept the terms of the license and continue. Click "Cancel" if you do not wish to license the software at which time it will cancel the installation.


License Agreement
Please read the following license agreement carefully.
Press the PAGE DOWN key to see the rest of the agreement.
StorView Software License Agreement and Warranty
PLEASE READ THIS SOFTWARE LICENSE AGREEMENT AND WARRANTY CAREFULLY BEFORE USING THE SOFTWARE. BY OPENING THE SEALED PACKAGE OR OTHERWISE ACCESSING THE SOFTWARE YOU ARE AGREEING TO BE BOUND BY THE TERMS OF THIS LICENSE, WHICH INCLUDES THE SOFTWARE LICENSE AND CERTAIN DISCLAIMERS OF THE WARRANTY (the <Agreement>). IF YOU DO NOT AGREE TO THE TERMS OF THIS LICENSE, DO NOT USE THE SOFTWARE. YOU MAY PROMPTLY RETURN THE PACKAGE AND THE OTHER
Do you accept all the terms o' the preceding License Agreement? If you choose No, the setup will close. To install StorView, you must accept this agreement.
InstallShield
< Back
Yes >
Cancel

4 Choose the license manager type to install by selecting the appropriate radio button, and click the "Next" button. If you choose Local Manager, skip to step 5.
The Local license is provided free without the requirement of a serial number and activation code. It allows you to configure, manage, and monitor only a storage solution that is attached to your local host system.
The Global license requires a serial number and activation code. The Global license allows you to perform remote login, management and monitoring, and monitoring failover capabilities plus Email alert notifications and SNMP traps.

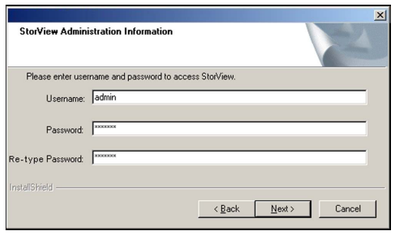
StorView License Manager
Select a StorView License Manager type:
StorView Local Manager: provides local host access only
StorView Global Manager: provides local & remote access plus full global access w/ Email alerts
InstallShield
< Back
Next >
Cancel

5 If you selected the Global Manager, on the next screen enter your serial number and activation code, then click the "Next" button.

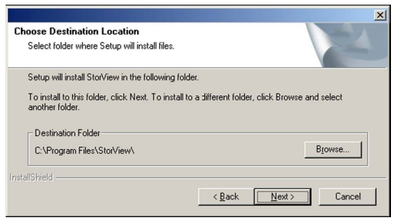


6 Enter the user name and password, then click the "Next" button.

This is the user name and password that will be established for the StorView login. You may use up to 258 characters for the user name or password, and it is case sensitive. Be sure to write down the user name and password, as it will be required to log into StorView.

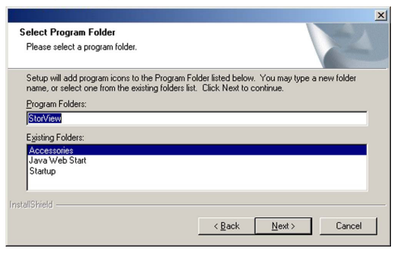


7 Accept the default installation directory and click the "Next" button, or to install in a different directory click the "Browse" button and choose the directory for the software installation, then click the "Next" button. The default directory is \Program Files\StorView.

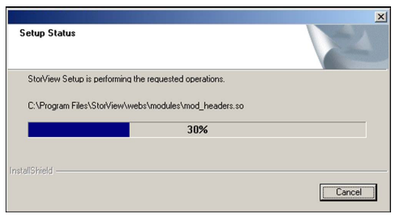

Choose Destination Location
Select folder where Setup will install files.
Setup will install StorView in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\StorView\
Browse...
InstallShield
< Back
Next >
Cancel

8 Choose the Start Menu folder and click the "Next" button.

You may accept the default name, "StorView" or create your own custom Start Menu folder name by entering the desired name.


Select Program Folder
Please select a program folder.
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing folders list. Click Next to continue.
Program Folders:
StorView
Existing Folders:
Accessories
Java Web Start
Startup
InstallShield
< Back
Next >
Cancel

The installation will begin. You may cancel the installation by clicking the "Cancel" button.



During the installation you will see several screens appear while the installer completes the StorView installation, followed by the installation and configuration of the HTTP web server software.

9 Once the installation is complete, a screen is displayed indicating the status of the installation. Click the "Finish" button.

10 Start StorView by opening your web browser software and entering the IP address of the host computer attached to the storage solution followed by the port number. The format is "HTTP://<your_IP>:9292," "HTTP://127.0.0.1:9292" or "HTTP://localhost:9292". Refer to the ***MAXDATA SR1202 M1 - StorView® RAID User Guide*** for more information.

10 Software Installation: Linux

System Requirements

The following are the minimum system requirements to install and use StorView on a Linux platform:

- A personal computer or server with an Intel Pentium III type processor or compatible.
- 128 MB RAM.
- CD-ROM drive and 100 MB hard disk space.
- 256 color video adapter. (Minimum display settings should be 1024x768.)
- Operating systems - Red Hat® Enterprise Linux AS/ES (RHEL 3 & 4) 32 Bit only, or SuSE® Linux Enterprise Server 8 and 9 32 Bit only.
- Web browser that is compliant with HTTP 1.1 and JavaScript 1.3 or later.
- Network adapter.
- SR1202

Installing StorView

1 Log in as "root".

2 Insert the Software and Manuals Disc into your CD drive.

3 Change directories to the software location.
`cd [CDROM mount point path]/software/storview/linux`

4 Execute the installer. Type:
`./StorViewInstall`

Note: If you receive a message that there is no match for your version of Linux, you will be presented with a list to choose from of the available certified operating systems.

5 Follow the on-screen prompts. The following utilities are provided to manage StorView:

/opt/StorView/StartStorView
/opt/StorView/StopStorView
/etc/rc.d/init.d/StorView {start|stop}

The directory where the software installs is the /opt/StorView directory.
To start StorView and the Apache web server type the following:
`./StartStorView`
To stop StorView and the Apache web server type the following:
`./StopStorView`
To determine if StorView is running, type the following:
`ps -ef | grep -i StorView`

Look for a running process named StorViewServer. There will be several of them. The Apache web server process is named "httpd".

The above command uses the recommended options, however you may use other options. Linux also has a pgrep command. Type "pgrep StorViewServer" or "pgrep httpd" and get a list of process IDs. No IDs means it is not running.

6 Start StorView by opening your web browser software and entering the IP address of the host computer attached to the storage system followed by the port number. The format is "HTTP://1<your_IP>:9292," "HTTP://127.0.0.1:9292" or "HTTP://localhost:9292". Refer to the ***MAXDATA SR1202 M1 - StorView® RAID User Guide*** for more information.

Removing StorView from Linux Platforms

1 Log in as "root".

2 Change directories:
`cd /opt/StorView`

3 From the command prompt, type:
`./UninstallStorView`

11 Embedded StorView Initial Setup

If this is the first startup of the Embedded StorView module, you will probably need to configure the network settings. The Embedded StorView module supports both DHCP and manual network settings. By default the Embedded StorView module will look for a DHCP server to obtain an IP address. If one is not found, it will search to determine if an IP address had been previously assigned. If an address was not previously assigned, then the system defaults to an IP address of:

10.1.1.5 for the lower RAID Controller (Controller 0)
10.1.1.6 for the upper RAID Controller (Controller 1)
10.1.1.7 if an error is detected
Subnet Mask is 255.0.0.0

A tool is provided to configure new Embedded StorView modules. From Windows platforms it is access via the Embedded link on the disc navigation menu and on Linux it is accessed via a command line executable.

When the Embedded StorView Setup program is run, it will broadcast UDP packets and any Embedded StorView module will reply with UDP packets containing their information. A list of "uninitialized" systems is displayed. Uninitialized systems are those which have not had the default user name and password changed. Even if a configuration is created with arrays and logical drives but the login name and password have not been changed, it will still be considered an uninitialized system. During the process of configuring an Embedded StorView module, you will be required to enter a "new' password and confirm that password. The default password is "password".

The Embedded StorView module is identified by its MAC and IP address. It may be more helpful during setup to configure one Embedded StorView module at a time. You will find the MAC address located on a label affixed to the top of the controller case or by accessing the VT-100 text-based menu function for Embedded StorView Menu mode and viewing the network settings. Note the specific address of each controller in multiple controller environments and the location where that specific controller is installed in the enclosure.

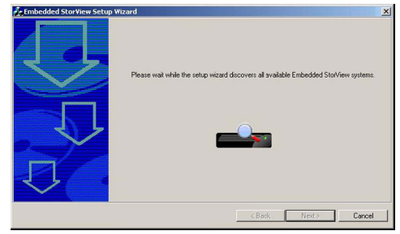
Setting up the Embedded StorView Module: Microsoft Windows

1 Insert the SR1202 Resource Disc into your CD drive. The autorun program will automatically start the navigation menu, click on the link for the hardware (SR1202) product which you have installed.

2 Under Software click the "Embedded StorView Setup" link to begin the Setup Wizard.

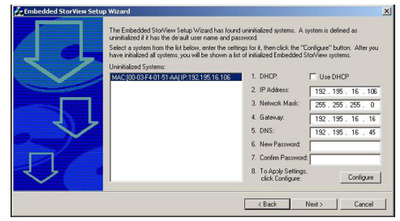
3 You are presented with a Welcome screen with instructions to proceed. Review the information and click the "Next" button.

4 The program will begin searching for Embedded StorView modules.


Embedded StorView Setup Wizard
Please wait while the setup wizard discovers all available Embedded StorView systems.
< Back
Next >
Cancel

Those embedded modules with their default password intact will be displayed with their MAC address in an Uninitialized list window. If all discovered embedded modules have had their default passwords changed, then you will be taken to the Initialized screen.

5 From the Uninitialized screen, select the MAC address of the embedded module you wish to configure. If you wish to use a DHCP server to assign your IP address, click the check box "Use DHCP".

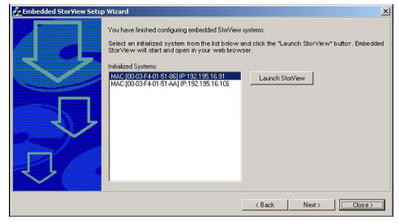

Embedded StorView Setup Wizard
The Embedded StorView Setup Wizard has found uninitialized systems. A system is defined as uninitialized if it has the default user name and password.
Select a system from the list below, enter the settings for it, then click the "Configure" button. After you have initialized all systems, you will be shown a list of initialized Embedded StorView systems.
Uninitialized Systems:
MAC:[00-03-F4-01-51-AA] IP:192.195.16.106
1. DHCP:
Use DHCP
2. IP Address:
3. Network Mask:
4. Gateway:
5. DNS:
6. New Password:
7. Confirm Password:
8. To Apply Settings, click Configure.
Configure
< Back
Next >
Cancel

If you wish to manually configure your network setting, enter the correction information in the appropriate fields.

Enter a "new" password and confirm the new password. Click the "Configure" button.

6 If you have additional uninitialized embedded modules, select the next MAC address and choose the appropriate settings from the previous step.

Once you have completed configuring all the uninitialized embedded modules and have clicked the "Configure" button, the wizard will display a popup message indicating all systems have been configured. It will then re-scan for systems and if none are found, you will be taken to the Initialized screen. If someone plugs in a uninitialized module system to the network (same subnet mask) during the time of the rescan or resets a system's password back to the defaults, you will be taken to the Uninitialized screen again.


Embedded StorView Setup Wizard
You have finished configuring embedded StorView systems.
Select an initialized system from the list below and click the "Launch StorView" button. Embedded StorView will start and open in your web browser.
Initialized Systems:
MAC:[00-03-F4-01-51-86] IP:192.195.16.91
MAC:[00-03-F4-01-51-AA] IP:192.195.16.105
Launch StorView
< Back
Next >
Close

Select the MAC address of the embedded module you wish to start and click the "Launch StorView" button.

Your default web browser will open with a login screen. Enter the login name and "new" password then click "OK". The StorView Main screen will open.

Setting up the Embedded StorView Module: Linux

1 Log in as "root".

2 Insert the Software and Manuals Disc into your CD drive.

3 Change directories to the software location. Type:
`cd [CDROM mount point path]/software/storview/embedded`

4 Execute the Embedded StorView Setup Tool. From the command prompt, type:
`./esvsetupcl-linux`
`Embedded StorView Setup Tool. v1.0`
`Entering Menu Mode.`

5 Follow the on screen prompts. At the conclusion of the setup you will be instructed on how to proceed.